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Ken Houghton

To: Mr. M. Hausermann Date: February 6, 1987

From: F. Senehi Doc name: sef87d82

Subject: New Brand launched in Germany:
Reynolds 84/F Double Blend / Intermediate Report

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I INTRODUCTION

In the patent "EP 0 174 550 A1" under the summary of the invention, it is said that it is an object of this invention to provide a cigarette having a puff-by-puff nicotine delivery curve radically different from that of a conventional cigarette. This is accomplished in the present invention by providing a segmented cigarette with a filter-end segment having a density at least 20% greater than the fire-end segment. This density differential may be combined with a nicotine differential such that the fire-end segment has a higher nicotine level than does the tobacco of the filter-end segment.

The aim of this study was to find out if different filler densities and blends were used on the different segments of the tobacco rod and furthermore figure out the effect of these modifications on the firmness and the RTD of the different segments of tobacco rod.

Source: https://www.industrydocuments.ucsf.edu/docs/lxpk0001

II PROCEDURES

1. Total alkaloid content of tobacco, tobacco weight and picking

Six segments of 10 mm each were cut in the tobacco rod and the analyses were made on each segment.

- Segment one corresponds to the filter-end
- Segment six corresponds to the fire-end

Three determinations of the total alkaloid content of tobacco were made on each segment.

Two picking determinations were carried out on each segment. The average tobacco weight was also determined on each segment.

2. Resistance to draw

Two segments of 31,5 mm each were cut in the tobacco rod of 30 cigarettes and the RTD was determined on 30 segments A and 30 segments B.

The average tobacco weight was also determined on each segment.

3. Firmness along the cigarette, diameter and oven volatiles

Ten determinations were made at the rate of 8 cigarettes per determination on five different compression points of the tobacco rod using the Borgwaldt DD60 densimeter with one steel rod.

Before measuring the first compression point at 34 mm of the filter-end, the filter plug was taken off to avoid any influence of the rigidity of the filter plug on the firmness determination.

100 cigarettes were used for the determination of diameter at the rate of 20 cigarettes per measurement while 80 cigarettes were used for the O.V. determination at the rate of 8 cigarettes per measurement.

III TABLE OF RESULTS

The results are summarized in the enclosed table. Some results have to be confirmed, such as "picking" of each segment where only one determination was made until now. We would also like to find out which tobacco particles (reconstituted tobacco, expanded tobacco) have contributed to the increase of the total alkaloid content of tobacco of segments 5 and 6 compared with segments 1 and 2.

Source: https://www.industrydocuments.ucsf.edu/docs/lxpk0001

IV EVALUATION OF THE RESULTS (see table)

1. The analyses on tobacco showed that:

   Two different blends were used since the alkaloid results of segments 5 and 6 (fire-end) were significantly higher than those obtained on segments 1 and 2 (filter-end).

   Segments 3 and 4 probably contained a mixture of the two blends.

2. The picking results showed a significantly higher reconstituted tobacco content for segments 4, 5 and 6 (fire-end) compared with segments 1, 2 and 3 (filter-end). This has to be confirmed later on.

3. The filler density and the weight of each segment have not yet been determined.

4. The tobacco weight of segment A (filter-end) was not significantly different from that of segment B (fire-end). However, the RTD values of segment A (filter-end) were significantly higher than those obtained on segment B (fire-end). This could probably be explained by the difference in the quality of tobacco (type of tobacco particles, length of the tobacco fibres etc.)

5. The spot firmness results showed a better firmness (lower values) from the fire-end to the filter-end except for point J (probably related to the dense ends) and point F (probably related to the absence of filter plug which does not retain the tobacco filler anymore). We will investigate this matter. The statistical t test showed that the results obtained between point G and point I differ significantly.

V CONCLUSION

All these results showed that two different blends were used probably in 50/50 or 60/40 %. However, all the tests have not yet been made in order to detect the difference in filler density between the two blends.

Best regards.

CIGARETTE INFORMATION

F. Senehi

Enclosure mentioned

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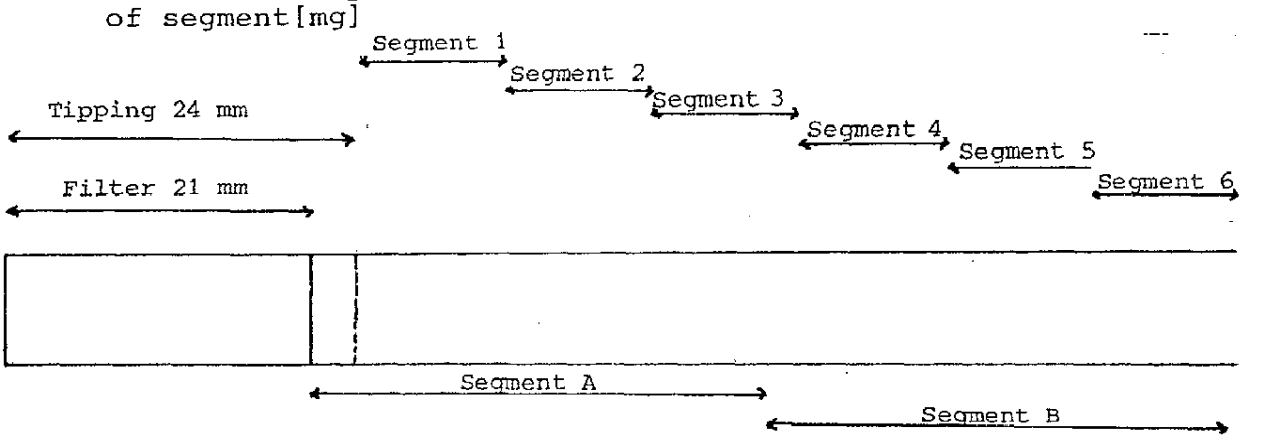
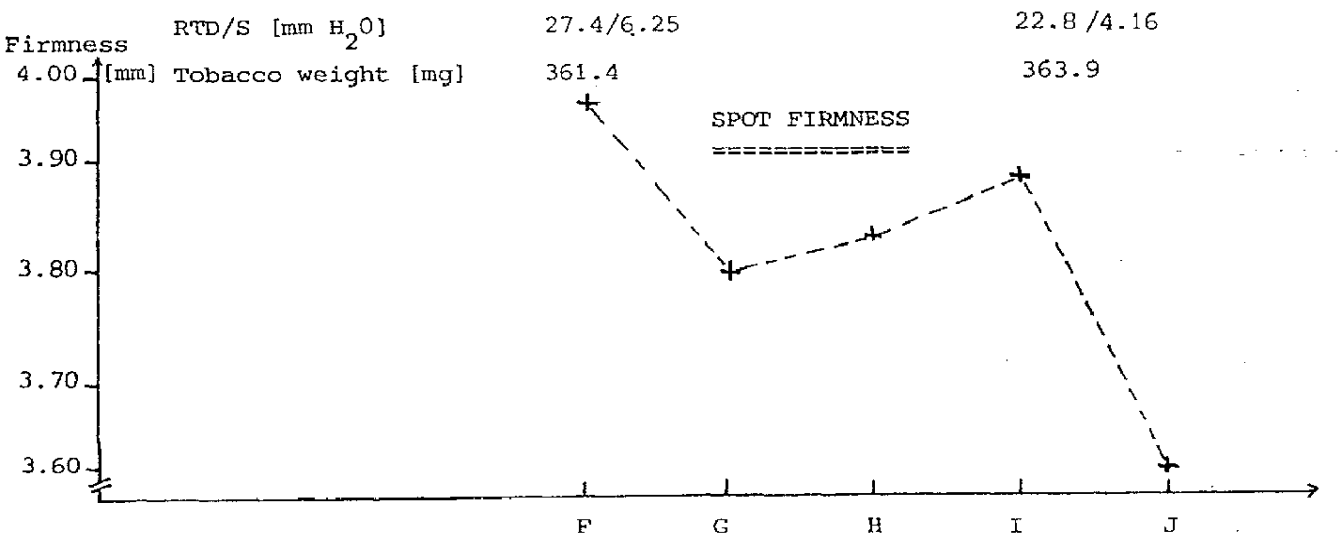
TABLE OF RESULTS

Reynolds Double Blend

Filler Segment		1	2	3	4	5	6
- Total alkaloids	[%]	1.64	1.61	1.79	1.99	2.22	2.25
- Reducing sugars	[%]	11.1	11.4	10.8	10.1	9.8	9.6
- $N\text{-}NO_3$	[%]	0.19	0.17	0.19	0.19	0.19	0.20
- $N\text{-}NH_3$	[%]	0.17	0.17	0.17	0.16	0.16	0.16
Picking							
- Stems	[%]	9	11	7	7	8	9
- Improved stems	[%]	4	5	3	1	1	1
- Reconstituted tobacco	[%]	4	7	7	15	20	13
- Expanded tobacco	[%]	8	9	9	12	12	11
- Width of cut	[mm]	0.8	0.8	0.8	0.8	0.8	0.8
- Weight of segment	[mg]						
- Filler density of segment	[mg]						





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